

REMARKS

Claims 1-38 are pending in this application. Claims 12, 13, 21, 24, 27, and 29-35 have been subjected to a restriction requirement and have been withdrawn from consideration. Claims 1-11, 16-20, 22, 23, 25, and 36-38 have been rejected while claims 14, 15, 26, and 28 have been objected to.

Restriction Requirement

Applicant acknowledges the finality of the restriction requirement and the election of species requirement.

Information Disclosure Requirement

Applicant notes that the Office has not considered the Walter et al. because a copy of that publication was not provided. Applicant has searched for that publication, but has not been able to obtain a copy thereof. Accordingly, Applicant is not able to provide a copy of that publication.

Claim Suggestions/Comments

Applicant appreciates the Office's helpful comments and suggestions regarding claims 14 and 26. Applicant agrees that the skilled artisan would have understood those appropriate substituents that are commonly present in ammonium salts.

Applicant also appreciates the Office's comments regarding "p" and "q" and the values that these letters can represent. In light of the Office's comments, Applicant has amended the

specification and claims as indicated above, even though these claims were otherwise allowable. Thus, these claims were amended for clarity and consistency, and not for patentability.

Specification and Claim Objections

Applicant appreciates the Office's comments regarding the subscript "2" in the formula (I). In light of the Office's comments, Applicant has amended the specification and claims as indicated above.

Rejection – 35 U.S.C. § 102(b) over Ohnaka et al.

The Office has rejected claims 1-11, 16-20, 22-23, 25, and 36-38 under 35 U.S.C. § 102 (b) as being anticipated by Ohnaka et al. (U.S. Patent No. 5,194,333) for the reasons listed on page 5 of the Office Action. Applicant respectfully traverses this rejection.

The rejected claims all contain the limitation that the coating (or organosilane or polycarbosilane in the coating) is bonded to the metal oxide (or silica) substrate through at least three attachment points. The advantages of this claimed feature is described on pages 10-11 of the present specification.

The Office has not shown that Ohnaka et al. anticipate such a claim limitation. Ohnaka et al. create a coating of polycarbosilane on a silica gel by converting a polysilane material. *See column 4, lines 21-35.* The polysilane, however, does not contain any reactive groups for bonding to the silica gel. The thermal rearrangement of the polysilane to polycarbosilane yields a hydrolytically stable polymer, but it is just coated and not bonded on the silica gel. For bonding to take place, the silica surface must be pre-functionalized to provide groups capable of forming bonds to the polycarbosilane.

Further, at the time of conversion of the polysilane to the polycarbosilane on the silica gel, it is possible to prevent detachment of the polycarbosilane by preliminarily introducing various functional groups to the silica gel surface....

See column 4, lines 39-43 (emphasis added). Thus, Ohnaka et al. does not teach that the polycarbosilane is bonded to the silica gel. Accordingly, Ohnaka et al. cannot teach that the bonding occurs via three attachment points as recited in the present claims.

For the above reasons, the Office has not substantiated that Ohnaka et al. anticipate the rejected claims. Accordingly, Applicant respectfully requests withdrawal of this ground of rejection.

Rejection – 35 U.S.C. § 102(b) over McGill et al.

The Office has rejected claims 1-4, 9, 11, 16-17, 22, and 25 under 35 U.S.C. § 102 (e) as being anticipated by McGill et al. (U.S. Publication No. 2002/00009603) for the reasons listed on pages 5-6 of the Office Action. Applicant respectfully traverses this rejection.

As noted above, the rejected claims all contain the limitation that the coating (or organosilane or polycarbosilane in the coating) is bonded to the metal oxide (or silica) substrate through at least three attachment points. The Office, however, has not shown that McGill et al. anticipate such a claim limitation. McGill et al. create a coating of polycarbosilane on a silica gel. *See paragraph [0042].* The polycarbosilane is coated on the silica gel by various methods. *See paragraphs [0052] and [0076].* But McGill et al. does not teach that the polycarbosilane is bonded (as opposed to coated) to the silica gel. Accordingly, McGill et al. cannot teach that the bonding occurs via three attachment points as recited in the present claims.

For the above reasons, the Office has not substantiated that McGill et al. anticipate the rejected claims. Accordingly, Applicant respectfully requests withdrawal of this ground of rejection.

Rejection – 35 U.S.C. § 102(b) over Glajch et al.

The Office has rejected claim 11 under 35 U.S.C. § 102 (b) as being anticipated by Glajch et al. (U.S. Patent No. 4,746,572) for the reasons listed on page 6 of the Office Action. Applicant respectfully traverses this rejection.

As noted above, the rejected claims all contain the limitation that the coating (or organosilane or polycarbosilane in the coating) is bonded to the metal oxide (or silica) substrate through at least three attachment points. The Office, however, has not shown that Glajch et al. anticipate such a claim limitation. The Office contends that Glajch et al. disclose silica coated with a bidentate silane. Assuming, *arguendo*, that the Office's contention is correct, the Office still has not shown that Glajch et al. disclose a bonding via three attachment points as recited in the present claim 11.

For the above reasons, the Office has not substantiated that Glajch et al. anticipate the rejected claims. Accordingly, Applicant respectfully requests withdrawal of this ground of rejection.

Rejection – 35 U.S.C. § 102(b) over Kirkland et al.

The Office has rejected claim 11 under 35 U.S.C. § 102 (b) as being anticipated by Kirkland et al. (U.S. Patent No. 5,869,724) for the reasons listed on page 6 of the Office Action. Applicant respectfully traverses this rejection.

As noted above, the rejected claims all contain the limitation that the coating (or organosilane or polycarbosilane in the coating) is bonded to the metal oxide (or silica) substrate through at least three attachment points. The Office, however, has not shown that Kirkland et al. anticipate such a claim limitation. The Office contends that Kirkland et al. disclose silica coated with a bidentate silane. Assuming, *arguendo*, that the Office's contention is correct, the Office still has not shown that Kirkland et al. disclose a bonding via three attachment points as recited in present claim 11.

For the above reasons, the Office has not substantiated that Kirkland et al. anticipate the rejected claims. Accordingly, Applicant respectfully requests withdrawal of this ground of rejection.

Rejection – 35 U.S.C. § 102(b) over Kirkland et al.

The Office has rejected claim 11 under 35 U.S.C. § 102 (b) as being anticipated by Kirkland et al. (U.S. Patent No. 5,948,531) for the reasons listed on pages 6-7 of the Office Action. Applicant respectfully traverses this rejection.

As noted above, the rejected claims all contain the limitation that the coating (or organosilane or polycarbosilane in the coating) is bonded to the metal oxide (or silica) substrate through at least three attachment points. The Office, however, has not shown that Kirkland et al. anticipate such a claim limitation. The Office contends that Kirkland et al. disclose silica coated with a bidentate silane. Assuming, *arguendo*, that the Office's contention is correct, the Office still has not shown that Kirkland et al. disclose a bonding via three attachment points as recited in present claim 11.

For the above reasons, the Office has not substantiated that Kirkland et al. anticipate the rejected claims. Accordingly, Applicant respectfully requests withdrawal of this ground of rejection.

Allowable Subject Matter

Applicant appreciates the acknowledgement that claims 14, 15, 26, and 28 would be allowable if rewritten to overcome the objections in the Office Action. Accordingly, Applicant has rewritten the claims to overcome the objections and make them more clear and consistent. Thus, Applicant requests an indication that these claims are now allowed.

Applicant wishes also to disagree with one statement in the reasons stated for why these claims are allowable. The Office states that that the cited prior art teaches the use of polydentate silanes. The Office has only argued that the cited prior art teaches the use of bidentate silanes. The Office has not argued or shown that the cited prior art teaches or suggests other types of polydentate silanes.

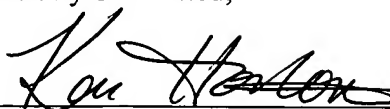
CONCLUSION

For the above reasons, as well as those of record, Applicant respectfully requests the Office to withdraw the pending grounds of rejection and allow the pending claims.

If there is any fee due in connection with the filing of this Amendment, including a fee for any extension of time not accounted for above, please charge the fee to our Deposit Account No. 50-0843.

Respectfully Submitted,

By



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